



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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M/023/003

May 24, 1995

TO: Minerals File

FROM: Tom Munson, Reclamation Hydrologist ✓

RE: Site Inspection, Brush Wellman Inc., Topaz Mine, M/023/003, Juab County, Utah

Date of Inspection: 5/16/95  
Time of Inspection: 11:00 AM - 4:00 PM  
Conditions: Sunny  
Participants: Greg Hawkins, John Wagner, Robert Hister (Guard), Clyde Yeates - Brush Wellman; Roddy Cox - BLM; Wayne Hedberg, Tom Munson, and Lynn Kunzler - DOGM

Purpose of Inspection: To view reclamation and operations

We started our field inspections with conversations in the mine office, then proceeded to the field to view reclaimed areas and ongoing mining operations. We returned to the office around 2:00 PM for lunch then ended the day with more field work.

#### Taurus Pit and Dump Area

We examined the roads on the east and west side of the pit. The roads were reseeded in the winter of 1994, adjacent to the dump area, where the operator had applied topsoil, gypsum, straw, horse manure and seed. It appeared that the area was doing good in some spots, but not as well in others. The application of straw and horse manure appeared spotty and uneven and there were areas where it appeared to be a foot thick.

#### Sigma Emma and Dump Area

We examined similar roads in this area that were treated with topsoil, horse manure, straw and gypsum at 150 lb/acre and then reseeded. Straw bales have been used as water bars and placed on the Sigma Emma pit road on the east side of the pit; however, poor surface roughness and trenches parallel to the slope have caused the outlets of the water bars to headcut and erode severely. Mr. Hawkins indicated that close to \$33,000 had been expended on reclamation and engineering in these areas to date, with marginal results. The Sigma Emma dump (tuff surface) has had two reseeded efforts which have not proven very successful. Because this area was reclaimed according to the approved reclamation plan, including supplemental reseeded efforts, the Division agreed to grant a variance from future revegetation obligations.



### **Reclamation for 1995 and Beyond**

Mr. Hawkins indicated that \$5,873 dollars have been spent this year, principally on annual report writing and revegetation work. Mr. Hawkins asked if the Division would consider a proposal to leave one or two of the pits open for wildlife and cattle water usage as a change to their approved permit. Apparently a couple of their pits (Taurus, and ?) presently collect surface runoff which is some of the best quality of water in the area. Local wildlife are presently using the ponded pit water. We indicated that the proposal may have some merit. We also discussed the current use of Anaconda's well on the adjacent state section. Brush Wellman is applying for a special use permit and will use the well mostly for dust control for two new pits and eventually a heap leach operation. They are attempting to use the well to its fullest pumping potential so that they can allocate that water in the future.

Discussions on the use of pig manure for reclamation was discussed; the idea of a test plot was mentioned. Discussions regarding the use of aerial seeding was talked about. Because of the surface roughness that is necessary to get good vegetation, it would preclude the use of drill seeders. Winterfat and rubber rabbitbrush seed hangs up in their drill seeder and the operator was concerned about this in regards to aerial seeding. Mr. Hawkins indicated that their next pits were scheduled to be opened up in late 1996 - early 1997.

### **Roadside 1 and 2 Backfill (east section)**

Good revegetation success, shallow upper topsoil used, gypsum and fertilizer applied. Strips of the area were not as successfully revegetating and, therefore, it was hoped that the adjacent vegetation would move in.

### **Roadside 1 and 2 Dumps (west side)**

Poor revegetation success, deeper subsoil, no fertilizer or gypsum applied, except along edges. It also was granted a variance.

### **Section 16 and Test Plots**

Out of all the test plots, the 6 inches of topsoil is doing the best at this point in time in terms of revegetation success.

### **Blue Chalk North and South Backfill**

The Blue Chalk South backfill not under a variance will receive additional backfill. The North Blue Chalk is under a variance.



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